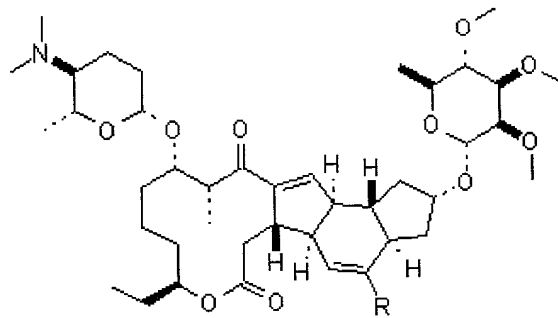


What is claimed is:

1. A composition comprising:

an effective amount of one or more agents having pediculicidal and ovacidal properties for adult lice and nits of a specie of order Anoplura in solution;

wherein the agents comprise a chemical structure of:



2. The composition of claim 1 further comprising one or more stabilizers.
3. The composition of claim 1, wherein the agents consist of one or more of the following:  
spinosad, spinosyn A, spinosyn D, any component produced by the *Saccharopolyspora spinosa* species and a combination thereof.
4. The composition of claim 1 wherein R comprises H.
5. The composition of claim 1 wherein R comprises CH<sub>3</sub>.
6. The composition of claim 1 wherein R comprises a mixture of H and CH<sub>3</sub>.
7. The composition of claim 1 wherein R comprises a mixture of H: CH<sub>3</sub> wherein the relative structures are in a weight ratio of approximately 85:15.
8. The composition of claim 1 wherein the agents comprise greater than about 0 to about 10 percent of the composition.

9. The composition of claim 1 wherein the agents comprise between about 0.5 to about 5 percent of the composition.
10. The composition of claim 2, wherein the stabilizers comprise one or more of the group consisting of PVM/MA Decadiene crosspolymers, acrylates/aminoacrylates C10-30 Alkyl PEG-20 Itaconate copolymer, long chain acyl derivatives, alkanolamides, esters of long chain of fatty acids, alkyl dimethylamine oxides, methylcellulose, hydroxybutyl methylcellulose, hydroxypropylcellulose, hydroxypropyl methylcellulose, hydroxyethyl cellulose, distearyl phthalic amide, di(hydrogenated) tallow phthalic amide, primary amines with a fatty alkyl moiety of at least 16 carbons, polyacrylic acids, polysaccharide gums, colloidal clays and colloidal silica.
11. The composition of claim 2, wherein the stabilizers comprise PVM/MA Decadiene crosspolymers.
12. The composition of claim 2 wherein the stabilizers comprise about 0.5 to about 1.5 percent of the composition.
13. The composition of claim 2 wherein the stabilizers have a particle size of less than 75  $\mu$ .
14. The composition of claim 1, wherein the solution further comprises a solvent consisting of one or more of the following: benzyl alcohol, pentylene glycol, isopropyl alcohol, hexylene glycol, butylene glycol, and dipropylene glycol.
15. The composition of claim 1 further comprising:
- one or more stabilizers;
  - one or more moisturizers;
  - one or more emulsion stabilizers;

one or more emulsifying agents;

one or more conditioning agents;

one or more antioxidants; and

one or more pH adjuster.

16. The composition of claim 15 wherein the moisturizer comprises propylene glycol.

17. The composition of claim 15 wherein the emulsion stabilizer comprises a mixture of cetyl and stearyl alcohols.

18. The composition of claim 15 wherein the emulsifying agent comprises Ceteareth-20.

19. The composition of claim 15 wherein the conditioning agent comprises stearalkonium chloride.

20. The composition of claim 15 wherein the antioxidant comprises BHT.

21. The composition of claim 15 wherein the pH adjuster comprises sodium hydroxide.

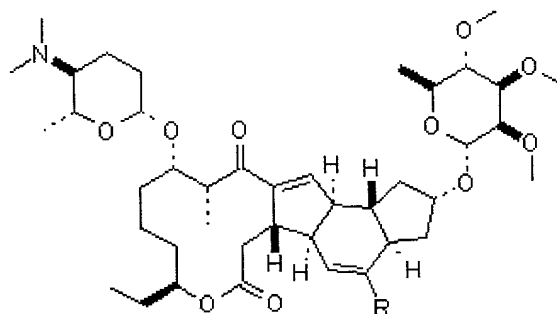
22. The composition of claim 15 further comprising one or more viscosity increasing agents.

23. The composition of claim 22 wherein the viscosity increasing agent comprises a mixture of cetyl and stearyl alcohols.

24. A composition comprising:

an effective amount of one or more agents having pediculicidal and ovacidal properties for adult lice and nits of a specie of order Anoplura in solution;

wherein the agents comprise a chemical structure of :



y Docket No.: 00-40374-US

and

one or more stabilizers.

25. A composition comprising:

About 44% water;

About 1.1% PVM/MA Decadiene crosspolymers;

About 3% propylene glycol;

About 3% cetearyl alcohol;

About 0.9% ceteareth-20;

About 4.17% stearalkonium chloride;

About 10% benzyl alcohol;

About 6% hexylene glycol;

About 4% pentylene glycol;

About 20% isopropyl alcohol;

About 2.19% mixture of spinosyn A & D in an approximate 85:15 weight ratio;

About 0.1% BHT; and

About 1.29% sodium hydroxide (10% solution).

26. A composition comprising:

Water;

A PVM/MA Decadiene crosspolymers;

Propylene glycol;

A mixture of cetyl and stearyl alcohols;

Ceteareth-20;

Stearalkonium chloride;

Benzyl alcohol;

Pentylene glycol;

Isopropyl alcohol;

A mixture of spinosyn A and spinosyn D in a weight ratio of approximately 85:15;

BHT; and

Sodium hydroxide.

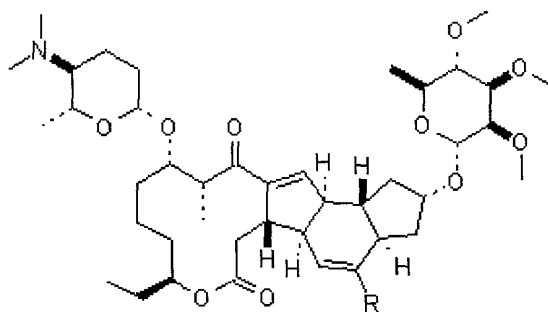
27. A method of controlling adults and ova of the species of order Anoplura by topically

applying to one or more of skin and hair a composition comprising:

an effective amount of one or more agents having pediculicidal and ovacidal

properties in solution;

wherein the agents comprise a chemical structure of:



28. The method of claim 27 wherein the composition further comprises one or more

stabilizers.

29. The method of claim 27, wherein the agents consist of one or more of the following:

spinosad, spinosyn, spinosyn A, spinosyn D, any component produced by the

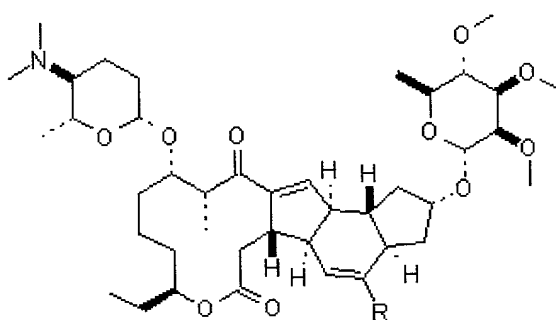
*Saccharopolyspora spinosa* species and a combination thereof.

30. The method of claim 27, wherein R comprises H.
31. The method of claim 27, wherein R comprises CH<sub>3</sub>.
32. The method of claim 27, wherein R comprises a mixture of H:CH<sub>3</sub>.
33. The method of claim 27, wherein R comprises a mixture of H:CH<sub>3</sub> wherein the relative structures are in a weight ratio of approximately 85:15.
34. The method of claim 27, wherein the agents comprise greater than about 0 to about 10 percent of the composition.
35. The method of claim 27 wherein the agents comprise between about 0.5 to about 5 percent of the composition.
36. The method of claim 28, wherein the stabilizers comprise one or more of the group consisting of PVM/MA Decadiene crosspolymers, acrylates/aminoacrylates C10-30 Alkyl PEG-20 Itaconate copolymer, long chain acyl derivatives, alkanolamides, esters of long chain of fatty acids, alkyl dimethylamine oxides, methylcellulose, hydroxybutyl methylcellulose, hydroxypropylcellulose, hydroxypropyl methylcellulose, hydroxyethyl cellulose, distearyl phthalic amide, di(hydrogenated) tallow phthalic amide, primary amines with a fatty alkyl moiety of at least 16 carbons, polyacrylic acids, polysaccharide gums, colloidal clays and colloidal silica.
37. The method of claim 28, wherein the stabilizer comprise PVM/MA decadiene crosspolymers.
38. The method of claim 28 wherein the stabilizers comprises about 0.5 to about 1.5 percent of the composition.

39. The method of claim 28 wherein the stabilizers have a particle size of  $< 75\mu$ .
40. The method of claim 27, wherein the solution further comprises a solvent consisting of one or more of the following: benzyl alcohol, pentylene glycol, isopropyl alcohol, hexylene glycol, butylene glycol, and dipropylene glycol.
41. The method of claim 27 further comprising:
- one or more stabilizers;
  - one or more moisturizers;
  - one or more emulsion stabilizers;
  - one or more emulsifying agents;
  - one or more conditioning agents;
  - one or more antioxidants; and
  - one or more pH adjuster.
42. The method of claim 41 wherein the moisturizer comprises propylene glycol.
43. The method of claim 41 wherein the emulsion stabilizer comprises a mixture of cetyl and stearyl alcohols.
44. The method of claim 41 wherein the emulsifying agent comprises Ceteareth-20.
45. The method of claim 41 wherein the conditioning agent comprises stearalkonium chloride.
46. The method of claim 41 wherein the antioxidant comprises BHT.
47. The method of claim 41 wherein the pH adjuster comprises sodium hydroxide.
48. The method of claim 41 further comprising one or more viscosity increasing agents.
49. The method of claim 48 wherein the viscosity increasing agent comprises a mixture of

cetyl and stearyl alcohols.

50. A method of controlling adults and ova of the species of order Anoplura by topically applying to one or more of skin and hair a composition comprising:
- an effective amount of one or more agents having pediculicidal and ovacidal properties in solution;
  - wherein the agents comprise a chemical structure of :



and

one or more stabilizers.

51. A method of controlling adults and ova of the species of order Anoplura by topically applying to one or more of skin and hair a composition comprising:
- about 44% water;
  - about 1.1% PVM/MA decadiene crosspolymer;
  - About 3% propylene glycol;
  - About 3% cetearyl alcohol;
  - About 0.9% cetareth-20;
  - About 4.17% stearalkonium chloride;
  - About 10% benzyl alcohol;



About 6% hexylene glycol;

About 4% pentylene glycol;

About 20% isopropyl alcohol;

About 2.19% mixture of spinosyn A and spinosyn D in an approximate 85:15 weight ratio;

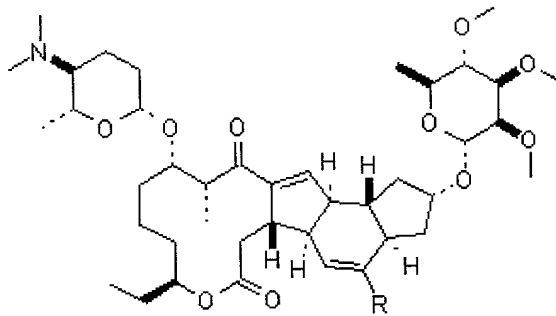
About 0.1% BHT; and

1.29% sodium hydroxide (10% solution).

52. A method for solubilizing agents having pediculicidal and ovacidal properties comprising:

Combining one or more solvents and an effective amount of one or more agents having pediculicidal and ovacidal properties;

wherein the agents comprise a chemical structure of :



53. The method of claim 52 further comprising adding one or more stabilizers.

54. The method of claim 52, wherein the agents consist of one or more of the following:

spinosad, spinosyn, spinosyn A, spinosyn D, any component produced by the *Saccharopolyspora spinosa* species and a combination thereof.

55. The method of claim 52, wherein R comprises H.

56. The method of claim 52, wherein R comprises  $\text{CH}_3$ .
57. The method of claim 52, wherein R comprises a mixture of  $\text{H}:\text{CH}_3$ .
58. The method of claim 52, wherein R comprises a mixture of  $\text{H}:\text{CH}_3$  wherein the relative structures are in a weight ratio of approximately 85:15.
59. The method of claim 52, wherein the agents comprise greater than about 0 to about 10 percent of the composition.
60. The method of claim 52 wherein the agents comprise between about 0.5 to about 5 percent of the composition.
61. The method of claim 53, wherein the stabilizers comprise one or more of the group consisting of PVM/MA Decadiene crosspolymers, acrylates/aminoacrylates C10-30 Alkyl PEG-20 Itaconate copolymer, long chain acyl derivatives, alkanolamides, esters of long chain of fatty acids, alkyl dimethylamine oxides, methylcellulose, hydroxybutyl methylcellulose, hydroxypropylcellulose, hydroxypropyl methylcellulose, hydroxyethyl cellulose, distearyl phthalic amide, di(hydrogenated) tallow phthalic amide, primary amines with a fatty alkyl moiety of at least 16 carbons, polyacrylic acids, polysaccharide gums, colloidal clays and colloidal silica.
62. The method of claim 53, wherein the stabilizer comprise PVM/MA decadiene crosspolymers.
63. The method of claim 53 wherein the stabilizers comprises about 0.5 to about 1.5 percent of the composition.
64. The method of claim 53 wherein the stabilizers have a particle size of  $< 75\mu$ .
65. The method of claim 52 further comprising adding a solvent consisting of one or more of

the following: benzyl alcohol, pentylene glycol, isopropyl alcohol, hexylene glycol, butylene glycol, and dipropylene glycol.

66. The method of claim 52 further comprising adding one or more stabilizers; one or more moisturizers; one or more emulsion stabilizers; one or more emulsifying agents; one or more conditioning agents; one or more antioxidants; and one or more pH adjuster.
67. The method of claim 66 wherein the moisturizer comprises propylene glycol.
68. The method of claim 66 wherein the emulsion stabilizer comprises a mixture of cetyl and stearyl alcohols.
69. The method of claim 66 wherein the emulsifying agent comprises Cetareth-20.
70. The method of claim 66 wherein the conditioning agent comprises stearalkonium chloride.
71. The method of claim 66 wherein the antioxidant comprises BHT.
72. The method of claim 66 wherein the pH adjuster comprises sodium hydroxide.
73. The method of claim 66 further comprising adding one or more viscosity increasing agents.
74. The method of claim 73 wherein the viscosity increasing agent comprises a mixture of cetyl and stearyl alcohols.